

**HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
CORROSION CONTROL TEST STATION
FIELD DATA SURVEY FORM**

Location: (00+20) Date Surveyed: 07/06//2007
 T/S #: 1 Surveyed by: AS/MJ
 T/S Type: ST w/Anode Contract #: 8-W
 Was the T/S located? YES / NO YES Pipe Size: 24"

TEST STATION CONDITION

Test Box:	Buried under soil
Terminal Board:	Good
Wires:	Good
Other:	

SURVEY DATA

Test Wire Size/Description	Color	P/Cu-CuSO ₄ (V)		P/Zn (V)		Anode (mA)
		"On"	"Off"	"On"	"Off"	
1. #10AWG	Red	-1.389	-1.480	-0.935	-1.220	0.00
2. #10 AWG	Red	-0.663	-0.655	-0.535	-0.521	
3. #10 AWG	Green	-1.473	-1.145	-0.941	-0.980	
4. #8 AWG	Black	-0.140	-0.132			
5. #10 AWG	Black	-0.821	-0.812	-0.671	-0.674	
6. #10 AWG	Green	-0.663	-0.765	-0.519	-0.523	
7. #10 AWG	Black	-0.819	-0.870	-0.432	-0.634	
8.						

P/Cu-CuSO₄ = Pipe to Copper-Copper Sulfate Reference Electrode

P/Zn = Pipe to Zinc Reference Electrode

"On" = Reading with Anode(s) connected

"Off" = Reading with Anode(s) disconnected

Anode = Current output Anode(s)

TESTING THE EFFECTIVENESS OF INSULATING JOINTS

Groundbed:			
Connected to (B/W):			
	Current (A)	Voltage (V)	Resistance (ohms)
ON:			
OFF:			
DELTA:			

TESTING IR DROP

IR Drop Calibrations	I (A)	E (mV)	$K = \frac{\Delta I \text{ (mA)}}{\Delta E \text{ (mV)}}$	Between Terminals	Resistance (ohms)
INITIAL:					
FINAL:					
DELTA:					
			Direction:		

REPAIRS MADE

Test Box:	Cleared soil
Terminal Board:	
Wires:	
Other:	
Comments/Recommendations:	Anode current is not noticeable.

**HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
CORROSION CONTROL TEST STATION
FIELD DATA SURVEY FORM**

Location: (00+21) Date Surveyed: 07/06//2007
Rt. 40 at Patapsco Bridge Surveyed by: AS/MJ
 T/S #: 2 Contract #: 8-W
 T/S Type: IJ w/Anode Pipe Size: 24"
 Was the T/S located? YES / NO YES

TEST STATION CONDITION

Test Box:	Buried under soil
Terminal Board:	Good
Wires:	Good
Other:	

SURVEY DATA

Test Wire Size/Description	Color	P/Cu-CuSO ₄ (V)		P/Zn (V)		Anode (mA)
		"On"	"Off"	"On"	"Off"	
1. #10AWG	Black	-0.866	-0.799	-0.841	-0.798	104
2. #10 AWG	Red	-0.832	-1.570	-0.857	-1.556	
3. #10 AWG	Black	-1.852	-0.800	-0.828	-0.797	
4. #10AWG	Red	-0.867	-1.573	-0.842	-1.556	
5. #8 AWG	Black	-0.022	-0.005			
6.						
7.						
8.						

P/Cu-CuSO₄ = Pipe to Copper-Copper Sulfate Reference Electrode

P/Zn = Pipe to Zinc Reference Electrode

"On" = Reading with Anode(s) connected

"Off" = Reading with Anode(s) disconnected

Anode = Current output Anode(s)

TESTING THE EFFECTIVENESS OF INSULATING JOINTS

Groundbed:			
Connected to (B/W):			
	Current (A)	Voltage (V)	Resistance (ohms)
ON:	0.005	0.91	14.0
OFF:	0.000	0.98	
DELTA:	0.005	-0.07	

TESTING IR DROP

IR Drop Calibrations	I (A)	E (mV)	$K = \frac{\Delta I \text{ (mA)}}{\Delta E \text{ (mV)}}$	Between Terminals	Resistance (ohms)
INITIAL:					
FINAL:					
DELTA:					
			Direction:		

REPAIRS MADE

Test Box:	Cleared soil
Terminal Board:	
Wires:	
Other:	
Comments/Recommendations:	IJ appears to be working



Figure 57 - Location of Test Stations on contract 8W



Figure 58 - Test Station 8W-1 close-up